

Notice of Allowability

Application No.

10/758,536

Examiner

Bernard Krasnic

Applicant(s)

STANICH ET AL.

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5-21-2007.
2. ☒ The allowed claim(s) is/are 6-17 renumbered as 1-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20070719.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JINGDE WU
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1. Applicants' response to the last Office Action, filed 5/21/2007 has been entered and made of record.
2. Applicant has canceled claims 1-5 and claims 18-32.
3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Sean McGinn on July 19 2007.

The application has been amended as follows:

For amended claim 6 on page 3 of Amendment after Non-Final filed on May 21 2007.

1. Please delete -- ? -- in line 10.
2. Please insert "€" in line 10 after -- (o_1, o_2, o_3) --.

For claim 11 on page 5 of Amendment after Non-Final filed on May 21 2007.

1. Please delete -- is -- in line 1.

Art Unit: 2624

2. Please insert "are" in line 1 after -- input image --.

For claim 13 on page 5 of Amendment after Non-Final filed on May 21 2007.

1. Please delete -- X -- in line 2.
2. Please insert " \in " in line 2 after -- (p_1, p_2, p_3) --.
3. Please delete -- and -- in line 5.
4. Please insert " p_i comprise pixels; S is a set of 3-tuples of pixels; M is a gamut mapping of a pixel P; and" after line 5.

For claim 16 on pages 5-6 of Amendment after Non-Final filed on May 21 2007.

1. Please delete -- X -- in line 3.
2. Please insert " \in " in line 3 after -- $M(S)$ --.
3. Please insert "wherein s_i comprise real numbers denoting scaling factors; wherein α_i is a "penalty" coefficient of scaling; wherein $M(S)$ is a mapping of set S of pixels; and" after line 3.

For claim 17 on page 6 of Amendment after Non-Final filed on May 21 2007.

1. Please delete -- X -- in line 3.
2. Please insert " \in " in line 3 after -- $M(S)$ --.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

Independent claim 6 is allowable over the prior art of record. Claims 7-17 depend from claim 6 and therefore are allowed.

Independent claim 6 recites the limitation of: replace each output vector

$o = (o_1, o_2, o_3) \in P$; replace $Outimage_k(i, j)$ with o_k for $k = 1, 2, 3$; set

$$Error(o) = \sum_{k=1}^3 v_k \|L(Outimage_k - A'_k)\|.$$

The closest reference Wu ("Multimedia data hiding and authentication via halftoning and coordinate projection" – EURASIP Journal on Applied Signal Processing, 2002, pages 143-151, provided by Applicants IDS) discloses a digital halftoning process which comprises an iterative isotropic halftoning process. However, Wu does not teach the limitations [equation process] cited above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-

Art Unit: 2624

1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
July 25, 2007



JINGGE WU
SUPERVISORY PATENT EXAMINER